carried out. Of course, there are exceptions to this statement, but as a general rule it is worth considering.

After operation has been decided upon, the question arises whether one should simply drain the epididymis or remove it. In these cases one cannot be guided by analogous examples of gonococcal infection. We are dealing with an organism virulent enough to overcome the resistive powers of the tissues. I feel that if the patient is so ill as to necessitate an operation, then removal of the epididymis should be performed. Destruction of the tubules has already taken place and it is not a question of preventing sterility, but of stopping the spread of the infection.

In some of the severe early cases I have noted on needling the globus major and the upper pole of the testicle, serous fluid oozing out of the puncture wounds. This to me indicates early involvement of the entire epididymis and testes. Alleviation can only be obtained by removing the infected region en masse.

Needling or incising the globus minor, as is done when the gonococcus is the invading organism, is not advisable.

The purpose of epididymotomy is to produce as little trauma as possible in order to prevent sterility. In these nongonorrheal cases, this operation merely causes the abscesses to coalesce, with great destruction of tissue and long-continued drainage of pus. As a result the object of the operation, namely, prevention of sterility, will not be attained.

### SUMMARY

In summarizing my observations, I conclude that:

1. The majority of cases of epididymitis can be prevented if the foci of infection are eradicated before instrumentation is performed.
2. In patients with chronic infections of the genito-urinary tract, the expectant treatment of epididymitis should be the rule.
3. When an operation is performed, the epididymis should be removed.

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### DISCUSSION

CHARLES P. MATHÉ, M. D. (760 Market Street, San Francisco).—I have been very much interested in the operation for epididymitis. In treating acute epididymitis it has been our custom to employ the intravenous injection of calcium with glucose. If no relief is obtained from its use in a reasonable length of time, operation is contemplated. It has been my good fortune to have often assisted Dr. L. Bazet, the first surgeon to perform the operation of epididymotomy in the sense of draining pus accumulated within the epididymis. The results were excellent in the fact that the patients' symptoms rapidly subsided with drainage. In the past it has been our custom to remove tuberculous epididymi, and to drain those infected by the gonococcus and the pus-producing organisms. I am glad to see that Doctor Kreutzmann employs epididymectomy in place of simple drainage. It seems to me that this would be the operation of choice in the recurrent type of epididymitis. In the acute fulminating type, however, characterized by huge enlargement of the epididymis, inflammatory hydrocele and marked congestion of the surrounding tissues, simple epididymotomy is the safest procedure and gives excellent results.

JAMES POTTER, M. D., (United States Training Station, Goat Island, San Francisco).—Nonvenereal epididymitis developing in a man who is in the naval service is a big question. The men who develop venereal epididymitis and require admission to the sick list lose pay while incapacitated. Naturally, it is difficult for us to obtain an unbiased history, and most cases are considered to be of venereal origin. In regard to treatment, I believe that the injection of nonspecific foreign protein in conjunction with calcium chlorid is almost a specific. In addition, the exposure of the swollen testicle to an infra-red light from thirty to forty minutes each day will markedly decrease the number of sick days.

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## DERMATOLOGY FOR NURSES*

*By* ERNEST DWIGHT CHIPMAN, M. D.
*San Francisco*

DISCUSSION *by Thomas J. Clark, M. D., Oakland; Harry E. Alderson, M. D., San Francisco.*

IN a paper read before this section one year ago I ventured the assertion that less than 10 per cent of the nurses we meet are capable of applying a satisfactory dermatologic dressing. As a result of the suggestion that some one be delegated to deal with this question at this meeting our chairman invited me to undertake the task.

Now it takes no exhaustive study to determine why nurses are not prepared adequately to care for our cases. There are two reasons. Taken by and large, probably a smaller percentage of dermatologic cases require nursing care than those of any other specialty. So lack of experience is one reason. The second reason is a lack of interested teaching to nurses in the training schools. While the first reason is not within our control we can and should do our part in teaching the nurses what we expect of them.

### STATE BOARD REQUIREMENTS IN TEACHING OF NURSES

The teaching of nurses is regulated largely by the requirements of the State Board. In preparing a synopsis of this paper I referred to the State Board requirements as calling for a knowledge of purpura and pellagra and not for any special ability to put on an acceptable dermatologic dressing. I since learn that these are the requirements of the National League of Nursing Education.

### TEACHING REQUIREMENTS OF NATIONAL LEAGUE OF NURSING EDUCATION

The outline from the standard curriculum of this League is much more comprehensive in its scope than that of the California State Board. Its program is divided into ten parts and includes much that is given under the head of medicine and surgery in this state; for example, the acute exanthemata and carcinoma. It also includes syphilis, tuberculosis, purpura, pellagra and myxedema.

Under this plan fifteen units are required and if, for example, six lectures are given by a der-

* Read before the Dermatology and Syphilology Section of the California Medical Association at the fifty-ninth annual session at Del Monte, April 28 to May 1, 1930.

matologist nine other units are given by an instructor so as to make up the total.

"The object of the course" as presented in this outline, "should be to give the student a necessary knowledge of the more common diseases of the skin with which she will come in contact in her general nursing and in school nursing; also to enable her to understand the ordinary methods of treatment and to be able to protect herself and others."

This sounds much less pretentious than the schedule. It seems to me that after all what we should seek to teach nurses is simply what we expect them to know when we meet them on cases plus a practical knowledge of the diseases we may fairly expect them to recognize in school work.

On this basis, it would seem wise to emphasize such topics as impetigo, pediculosis, scabies, ringworm, etc., and eliminate all references to such entities as pellagra, purpura and acromegaly.

The schedule of the State Board calls for "lectures by physicians; classes, clinics, demonstrations by instructors of students in the structure and function of the skin, hygiene of the skin, common skin diseases, their treatment, nursing care and general precautions." This sounds ideal, but I believe that it presupposes a knowledge and a course of training by the instructors of nurses which either is not commonly possessed or imparted. If we give a course of six or eight lectures, allowing one for the subject of remedies used in dermatology and their application, I do not believe we are going to attain our objective unless we can instruct the instructors so that they can, in personal quizzes and demonstrations, see that the student has learned her lesson.

### SIX-LECTURE PROGRAM SUBMITTED FOR DISCUSSION

As the purpose of this paper is largely to open a discussion as to what we should teach nurses and to agree as far as possible upon a fixed technique for dermatologic dressings, let me summarize first what seems to me a fair teaching program of six lectures, and then take up the subject of the technique of dressings. For convenience of discussion I have divided the material under six heads corresponding to six lectures.

*Lecture No. I*—Anatomy and physiology of the skin, showing by illustrations the structure of the skin and appendages, methods of epidermal regenerations, etc. Also included in this lecture are definitions of all the primary and secondary lesions.

*Lecture No. II*—The pathology of the skin with special explanation of the process of inflammation—the definition of such terms as erythema, anemia, ischemia, hyperemia, cyanosis, etc., a discussion of various forms of dermatitis such as dermatitis calorica, dermatitis venenata, dwelling on dermatitis of industrial nature, from poison oak, hair dyes, primrose, etc. The pathologic states to which the skin sometimes gives the clue, such as jaundice, Addison's disease, carotinemia, should be emphasized.

*Lecture No. III*—Diseases due to bacteria: Acne, impetigo, furunculosis, and others of similar nature.

*Lecture No. IV*—Diseases due to parasites: (a) Animal—fleas, bedbugs, scabies, pediculi; (b) Vegetable—ringworm group.

*Lecture No. V*—Common affections such as psoriasis, hives, shingles, chilblains, warts, moles, the seborrheic state.

*Lecture No. VI*—The remedies used in dermatology and application: Baths, lotions, creams, ointments, pastes, varnishes, compresses, starch poultices. The removal of crusts, ointments, pastes, etc.

Soaps—the indications for superfatted, strongly alkaline and medicated soaps.

Powders—indications, whether for the absorption of moisture, for astringent action or protection.

Such physical agents as x-ray and quartz light, to indicate the possible dangers when used by unqualified operators.

This last lecture is of the greatest importance and for a start let me submit the following outline of instruction in the application of remedies with the hope that members of the section will register any additions, omissions or alterations which occur to them.

Lotions—Those containing substances in complete solution may be applied by hand or by linen pads. In acute conditions absorbent cotton should be interdicted. "Shake lotions" such as the familiar calamine lotion should be thoroughly mixed, a sufficient quantity poured out upon a shallow dish, scooped out with a soft cloth and patted on so as to form a powdery film. If the case is severe strips of linen may be impregnated with the mixture and kept continuously in contact with the surface to be treated.

The purpose of creams is for cleansing or soothing. A cold cream is so called because its refrigerant or cooling action is due to the evaporation of the water it contains, thus reducing the surface temperature.

An ointment differs from a paste in that the former melts at the body temperature and is used to facilitate the penetration of a medicament while the latter does not melt at body temperature and is used for protection and surface action.

Compresses used in dermatology must be differentiated from the wet dressing used in surgical cases. The indication for a compress in dermatology is to relieve a waterlogged condition of the surface tissue while in surgical practice the aim is to apply and retain heat.

Now, the dermatologic compress may be made with a cold solution and the retention of heat is to be avoided. Therefore we do not cover the compress with oiled muslin. The aim of our dressing is to conduct away from the tissue the redundant fluid by a process of osmosis or capillarity. For this reason, once applied the dressing should not be allowed to dry, as a dry dressing at

once forms an adhesion with the surface, defeating our purpose. The compress is preferably made with six to twelve layers of soft linen. In acute conditions gauze is less desirable because of the danger of fine shreds causing irritation. The most commonly employed compress is made with a saturate solution of boric acid, but one or two per cent resorcin and solutions of aluminum acetate are frequently prescribed for such dressings.

Oils, creams and starch poultices are frequently employed for the removal of crusts. A starch poultice is made by mixing a teaspoonful of boric acid with four tablespoonfuls of cold water starch and enough water to give the mixture the consistency of cream; a pint of boiling water is then boldly added, the mixture being constantly stirred until the starch bursts and a translucent jelly results. When this is quite cold the amount required is spread on cloth in a layer about half an inch thick. This is covered with muslin and applied to the part. (This is taken from Norman Walker.)

The use of soaps requires little discussion. For ordinary use as nearly neutral a soap as possible is indicated. In excessively oily skins a superalkaline soap such as green soap should be used.

Powders are used as protectives, as astringents or to absorb moisture. For every day use plain or borated talcum suffices. The carbonate of magnesia has the greatest capacity for absorbing moisture and tannoform is useful as an astringent.

Now this outline, plus your additions and minus your deletions, will represent what we believe should be taught nurses. Upon one point I shall hope for unanimous agreement, viz., that having presented such an outline to our nursing schools the responsible authorities in the schools are morally bound to see that each student nurse before she graduates is expected to demonstrate in quiz or clinic the technique of these various applications.

350 Post Street.

DISCUSSION

THOMAS J. CLARK, M. D. (1800 Madison Street, Oakland).—Dr. Chipman's plea for more systematic instruction in the subject of dermatology to the nurses in our training hospitals should be heartily supported by all interested in the advancement of medicine.

There are several viewpoints one may take in considering the training of nurses in dermatology but the subject reduces itself into three main objectives. The first is the broader viewpoint the nurse will have in her professional capacity if she is given an intelligent synopsis of this branch of medicine; second, that she may appreciate the practice of dermatology and the care of patients suffering from cutaneous disorders is much better accomplished by one who is medically trained to do this work; third, as skin diseases enter largely into the contacts of daily life she is better prepared as an individual to meet emergencies intelligently.

The training of the nurses in the Alameda County hospitals in dermatology has been intrusted to my care for a number of years past. This course has been given in the spring months to second-year students and is conducted as a series of eight lectures given at intervals of one lecture per week. The subject matter is divided into:

Lecture 1, Anatomy and Physiology.
Lecture 2, Skin Lesions, primary and secondary; etiological factors; diagnosis.
Lecture 3, Parasitic diseases, animal and vegetable.
Lecture 4, Toxic dermatoses; erythemata.
Lecture 5, Acute exanthemata.
Lecture 6, Acute infections and chronic infections.
Lecture 7, Congenital and acquired syphilis.
Lecture 8, Review and quiz.

The subject matter in these lectures is confined to the commonly met diseases and the subject is presented so that the nurse can apply the medical knowledge she receives from other departments to the better understanding of these skin diseases. It would be unwise to present subjects to nurses that one would hesitate to present to undergraduates in medicine. In this course the principles of therapeutics are mentioned rather than the details of treatment.

HARRY E. ALDERSON, M. D. (490 Post Street, San Francisco).—This discussion is very timely. Many of the hospitals not connected with medical schools do not provide sufficient instruction in dermatology and syphilology for nurses. On the other hand it is overdone in some institutions, and some textbooks on skin diseases for nurses are much too comprehensive. As for practical instruction in the application of various dermatological dressings, student nurses in hospitals with out-patient clinics, should learn all that is necessary as they work in turn on dermatological cases. However, it is very important to discuss this matter in the course of lectures.

At Stanford and Lane hospitals and several other training schools where my staff and I give instruction to nurses we make liberal use of the lantern. We also show clinical material whenever possible. We strongly emphasize the fact that in dermatological practice *we treat the patient* as well as the skin and we demonstrate the close relationship between the skin and the rest of the body. Nurses, patients and even physicians sometimes are inclined to take a superficial view of dermatology and they need to be reminded that we are engaged in the practice of medicine with the application of special knowledge of the skin and mucous membranes.

In our lectures we first discuss briefly the anatomy and physiology of the skin, its manner of reacting to internal bodily disturbances and to external influences. Then we present a few of the commoner dermatoses, paying particular attention to the more contagious bacterial and mycotic diseases, and to those due to insects. Hygiene and prophylaxis are discussed, but treatment is lightly touched upon for we are not aiming to produce "super-nurses." Finally, the subject of syphilis in all its phases is presented in one or two lectures fully illustrated. One week after the last lecture a written examination is given. To cover these subjects six lectures would be most satisfactory but they could be reduced to five. Instruction regarding the various dermatological preparations and methods of applying the same is very important. In spite of this teaching, however, it is usually necessary to personally show the new nurse assuming charge of a dermatological case in detail just how any given treatment should be administered.

Dr. Clark's remarks were interesting and I thoroughly approve of most of them, but I feel that the number of lectures in his course should be reduced. Lectures I and II could be combined. Likewise there could be some rearrangement of the other subjects making it possible to condense and join together at least two more. Then in place of the final quiz a comprehensive written examination could be prepared for the head nurse, who would give the same, the papers being corrected later by the lecturer. This would save three hours, one of which could be devoted to hygiene, prophylaxis and common remedies used in dermatology as suggested by Dr. Chipman.